



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/655,778	09/05/2003	Thomas L. Beck	7193	6594

22922 7590 03/09/2007
REINHART BOERNER VAN DEUREN S.C.
ATTN: LINDA KASULKE, DOCKET COORDINATOR
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER

GILLAN, RYAN P

ART UNIT	PAPER NUMBER
----------	--------------

3746

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	03/09/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/655,778

Applicant(s)

BECK ET AL.

Examiner

Ryan P. Gillan

Art Unit

3746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months' after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-91 is/are pending in the application.
- 4a) Of the above claim(s) 1-16,27-68 and 75-91 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 17-26 and 69-74 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/7/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 17-21 and 69-74 are rejected under 35 U.S.C. 102(b) as being anticipated by Dubinski 6,021,377. Dubinski teaches a method and control system for controlling a progressing cavity pump for transferring fluid within a fluid system, the method comprising the steps of: determining values of torque and speed inputs to the progressing cavity pump (col. 14 lines 44-53); using the values of torque and speed inputs to calculate one or more values representing the performance of the progressing cavity pump (col. 14 lines 54-67); using the progressing cavity pump performance values to produce one or more command signals (col. 14 lines 54-67); and using the command signals to control the speed of the progressing cavity pump (col. 15 lines 1-14), wherein the values of torque and speed inputs are determined using measured or calculated values without requiring downhole sensors (col. 14 lines 44-53); wherein the step of using progressing cavity pump performance values to produce command signals comprises the steps of: selecting a progressing cavity pump performance parameter to control (col. 23 lines 26-33); determining a setpoint for the selected progressing cavity pump performance parameter (col. 23 lines 26-33); calculating a control signal using the setpoint value of the selected progressing cavity pump performance parameter (col. 23

Art Unit: 3746

lines 33--49); and calculating the command signals from the control signal (col. 23 lines 33--49); wherein the selected progressing cavity pump performance parameter is the pump flow (col. 23 lines 49-58); wherein the step of using the command signals to control the speed of the progressing cavity pump includes repetitively switching the speed of the progressing cavity pump between a set pump speed for a portion of a cycle period and zero speed for the remainder of the cycle period to achieve an average pump flow equal to the setpoint value of the pump flow (col. 23 line 62 - col. 24 line 11); wherein the selected progressing cavity pump performance parameter is the pump head pressure (col. 14 lines 44-53 and col. 23 lines 49-58), wherein said means using the progressing cavity pump performance values to produce command signals includes means for calculating a feedback signal indicative of the difference between a current value of a selected progressing cavity pump performance parameter and a setpoint value of the selected progressing cavity pump performance parameter (col. 14 lines 53-67), and means for calculating the command signals from the feedback signal (col. 14 lines 53-67).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 23-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dubinsky in view of Mantey 5,820,350. Dubinsky teaches all of the claim limitations as

Art Unit: 3746

cited above, but fails to teach the following claim limitations taught by Mantey:

measuring the electrical voltages applied to the motor and currents drawn by the motor;
and using the measured values of electrical voltages applied to the motor and currents drawn by the motor to calculate motor torque (col. 4 lines 6-23).

5. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the control system taught by Dubinsky by incorporating the torque calculation method utilizing voltage applied to the motor as a means of conserving energy used by the motor and protecting the motor against damage (Mantey, col. 4 lines 24-34).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan P. Gillan whose telephone number is 571-272-8381. The examiner can normally be reached on 8:30 am - 5:00 pm; Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ehud Gartenberg can be reached on 571-272-4828. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3746

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RPG

RPG 3/5/07

MICHAEL KOCZO
PRIMARY EXAMINER

443746